

**IN THE OFFICE OF THE STATE ENGINEER  
OF THE STATE OF NEVADA**

IN THE MATTER OF THE ORDER  
DIRECTING STATE ENGINEER TO  
INVESTIGATE FLOW OF STREAM AND  
COMPLETE HYDROGRAPHIC SURVEY  
OF THE STREAM SYSTEM FOR TROUT  
CREEK, LOWER REESE RIVER  
VALLEY, LANDER COUNTY, STATE  
OF NEVADA.

**REPORT OF  
HYDROGRAPHIC SURVEY**

**GENERAL**

An “ORDER DIRECTING STATE ENGINEER TO INVESTIGATE FLOW OF STREAM AND COMPLETE HYDROGRAPHIC SURVEY OF THE STREAM SYSTEM FOR TROUT CREEK”<sup>1</sup> was signed on April 24, 2012 by the honorable Richard A. Wagner, District Court Judge.

The following **Proofs of Appropriation** and **Certificated Permits** are the subject of this hydrographic survey:

**Proof of Appropriation V-01563** was filed on May 13, 1918, by Mrs. Wm. Schwin and assigned to Daniel Edward and Eddyann U. Filippini claiming a vested water right with a diversion rate of 1.5 cubic feet per second (cfs) from Trout Creek for the irrigation of 233.70 acres of land with a priority date of 1896 and 99.90 acres added in 1909 with associated stock-water use. The place of use of the irrigated acreage in 1896 is described as 233.70 acres being located within portions of Sections 35 and 36 of T.30N., R.43E., M.D.B.&M. The additional acreage added in 1909 is described as being located within the N $\frac{1}{2}$  NW $\frac{1}{4}$  (5.93 acres) of Section 1, T.29N., R.43E., M.D.B.&M. and the SW $\frac{1}{4}$  (47.40 acres) and the W $\frac{1}{2}$  NW $\frac{1}{4}$  (46.57 acres) of Section 36, T.30N., R.43E., M.D.B.&M. The map filed in support of Proof of Appropriation (Claim) V-01563 lists a total of 337.24 acres located within portions of Sections 1 and 2, T.29N., R.43E., M.D.B.&M. and portions of Sections 35 and 36, T.30N., R.43E., M.D.B.&M. Review of the map indicated that acreage listed as “Sage Brush” within the following 40-acre subdivisions were not counted in the total acreage listed in the proof of appropriation: SE $\frac{1}{4}$ SW $\frac{1}{4}$  (1.40 acres), NE $\frac{1}{4}$ NW $\frac{1}{4}$  (0.68 acre) and SW $\frac{1}{4}$ SW $\frac{1}{4}$  (1.56 acres) all located within Section 36, T.30N., R.43E., M.D.B.&M. Two points of diversion are described on the map filed on May 13,

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<sup>1</sup> *Filippini v. Tomera and Rand*, Case No. CV10122, Dept. No. 02, Sixth Judicial District Court, In and For the County of Lander.

1918 in support of Claim V-01563. The first is listed as “Head gate No. 1” and is described as being located within the NE $\frac{1}{4}$ NW $\frac{1}{4}$  of Section 1, T.29N., R.43E., M.D.B.&M. Two additional points of diversion are described as “H.G. No. 2” and “H.G. No. 3”) and are both shown to be located within the SW $\frac{1}{4}$ SW $\frac{1}{4}$  of Section 36, T.30N., R.43E., M.D.B.&M. The point of diversion from the main channel into the ditch, described as the “bypass diversion”, that parallels the Trout Creek channel is described as being located approximately  $\frac{1}{2}$  mile west of the west end of the irrigated acreage claimed under Claim V-02768 (Rand) and it is located within the SE $\frac{1}{4}$ SW $\frac{1}{4}$  of Section 12, T.29N., R.44E., M.D.B.&M.

**Proof of Appropriation V-02678** was filed on July 28, 1970 by Leroy Horn and assigned to Rand Properties LLC claiming a vested right for the irrigation of 52.7 acres of land (Rand) and for the irrigation of 1.1 acres of land (Horn) with a total diversion rate of 1.076 cfs from Trout Creek for the irrigation of 53.8 acres of land and stock-water use. The place of use of the irrigated acreage is described as being located within the NE $\frac{1}{4}$ NE $\frac{1}{4}$  Section 13, T.29N., R.44E., M.D.B.&M., Lot 4 Section 12 and Lot 1 Section 13, T.29N., R.44 $\frac{1}{2}$ E., M.D.B.&M., S $\frac{1}{2}$ SW $\frac{1}{4}$  Section 7 and the NW $\frac{1}{4}$ NE $\frac{1}{4}$  and the N $\frac{1}{2}$ NW $\frac{1}{4}$  Section 18, T.29N., R.45E., M.D.B.&M. The point of diversion is described as being located within the SW $\frac{1}{4}$ SW $\frac{1}{4}$  of Section 18, T.29N., R.45E., M.D.B.&M.

1.1 acres of land under this proof remain in the name of Leroy Horn due to Lot 1 of Section 13 and Lot 4 of Section 12 both located within T.29N., R.44 $\frac{1}{2}$ E., M.D.B.&M. being omitted in the legal description of land being transferred from Jack Broughton and Loretta Broughton, Trustees of the Jack and Lori Broughton Revocable Trust, dated January 23, 1992, to Rand Properties, LLC, a Nevada limited liability company, Doc. No. 0255204, Book 600, Page 718, Official Records filed in the Lander County Recorder’s Office on September 16, 2009.

**Proof of Appropriation V-07581** was filed on February 23, 1996, by Julian Tomera Ranches claiming a vested water right from Trout Creek for the stock-water use for 150 head of cattle, 20 head of horses and 2000 sheep. The general description of the place of use is described as the natural channel of Trout Creek and its’ associated tributaries beginning at a point located within the SE $\frac{1}{4}$ SE $\frac{1}{4}$  Section 24, T.29N., R.45E., M.D.B.&M. and ending within the SE $\frac{1}{4}$  SW $\frac{1}{4}$  Section 33, T.30N., R.44E., M.D.B.&M.

**Proof of Appropriation V-010275** was filed on May 8, 2012, by John E. Carrington claiming a vested water right from Trout Creek and branches and springs within their natural channels for the stock-water use for an undisclosed number of cattle and sheep. The description of the place of use is described as the natural channel of Trout Creek and its’ associated tributaries located within the E $\frac{1}{2}$ NW $\frac{1}{4}$  and the NE $\frac{1}{4}$  of Section 27, T.29N., R.45E., M.D.B.&M. There is no description of one or multiple points of diversion or the description of a beginning and ending point in the natural stream channel.

**Proof of Appropriation V-010276** was filed on May 8, 2012, by Jack E. Carrington, aka John E. Carrington, and Virginia G. Carrington Declaration of Trust entered on February 19, 2003, claiming a vested water right from Trout Creek and springs, branches and tributaries within their natural channels for the stock-water use for an undisclosed number of cattle and sheep. The description of the place of use is described as the natural channel of Trout Creek and its' associated tributaries located within the E $\frac{1}{2}$ NE $\frac{1}{4}$ , E $\frac{1}{2}$ NW $\frac{1}{4}$  and the S $\frac{1}{2}$  of Section 23, T.29N., R.45E., M.D.B.&M. There is no description of one or multiple points of diversion or the description of a beginning and ending point in the natural stream channel.

**Permit 6456** was filed on May 7, 1921, by W.G. Lee and later assigned to Daniel and Eddyann Filippini to appropriate the waters of Trout Creek for irrigation purposes. **Certificate 901** was issued under said permit on December 11, 1923 for a diversion rate of 0.2749 cfs and 82.47 acre-feet of water for the irrigation of 27.49 acres of land located within the NE $\frac{1}{4}$ NW $\frac{1}{4}$  Section 25, T.30N., R.43E., M.D.B.&M. The point of diversion is described as being located within the NE part of the SW $\frac{1}{4}$  NW $\frac{1}{4}$  Section 25, T.30N., R.43E., M.D.B.&M. The water diverted onto this land is shown to share the same ditch with water from the Reese River under Permit 3864, Certificate 900. The place of use of the Reese River water is not shown to be legally commingled with the waters of Trout Creek for the same acreage.

**Permit 39377** was filed on October 22, 1979 by Leroy and Barbara Horn and later assigned to Julian Tomera Ranches Inc. to appropriate the waters of Trout Creek for stock watering purposes. **Certificate 12160** was issued under said permit on June 6, 1989 with a diversion rate of 0.0187 cfs or sufficient water for 600 head of cattle at troughs fed by a pipeline at points located within the NW $\frac{1}{4}$ NW $\frac{1}{4}$  Section 12 and SE $\frac{1}{4}$ NW $\frac{1}{4}$  Section 2, T.29N., R.44E., M.D.B.&M., and the SE $\frac{1}{4}$ NE $\frac{1}{4}$  and NE $\frac{1}{4}$ SE $\frac{1}{4}$  Section 33, T.30N., R.44E., M.D.B.&M. The point of diversion is described as being located within the SW $\frac{1}{4}$ NE $\frac{1}{4}$  Section 18, T.29N., R.45E., M.D.B.&M.

**Application No. 80737** was filed on April 4, 2011, by Julian Tomera Ranches, Battle Mountain Division to change the point of diversion and place of use of a portion, of 0.015 cfs, of the waters of Trout Creek that are currently claimed under Claim V-07581. This application lists the proposed place of use as being located within the SW $\frac{1}{4}$ SE $\frac{1}{4}$  and the SE $\frac{1}{4}$ NW $\frac{1}{4}$  Section 2, Lots 1 and 2 of Section 3, W $\frac{1}{2}$ NW $\frac{1}{4}$ , SE $\frac{1}{4}$ SE $\frac{1}{4}$  of Section 12, all located within T.29N., R.44E., M.D.B.&M.; and the SE $\frac{1}{4}$ NE $\frac{1}{4}$  and NE $\frac{1}{4}$ SE $\frac{1}{4}$  of Section 33, T.30N., R.44E., M.D.B.&M. The point of diversion is listed as being located within the SW $\frac{1}{4}$ NE $\frac{1}{4}$  Section 18, T.29N., R.45E., M.D.B.&M.

Application 80737 was timely protested by Daniel and Eddyann Filippini and Rand Properties, LLC.

**Application 81976** was filed on June 2, 2012 by Rand Properties LLC to change the place and manner of use of a portion of the waters of Trout Creek previously claimed under

Claim V-02468 for stock watering purposes. This application proposes to strip 0.73 acres located within the NE $\frac{1}{4}$ NW $\frac{1}{4}$  Section 18, T.29N., R.45E., M.D.B.&M. and move the water to stock troughs located within Sections 26, 27, 34 and 35, T.30N., R.44E., M.D.B.&M. and Section 3, T.29N., R.44E., M.D.B.&M.

Application 81976 was timely protested by Daniel and Eddyann Filippini and Julian Tomera Ranches Inc.

**Application 81952T** was filed on June 20, 2012 by Rand Properties LLC to temporarily change the place and manner of use of a portion of the waters of Trout Creek previously claimed under Claim V-02468 for stock watering purposes. This application proposes to strip 0.73 acres located within the NE $\frac{1}{4}$ NW $\frac{1}{4}$  Section 18, T.29N., R.45E., M.D.B.&M. and move the water to stock troughs located within Sections 26, 27, 34 and 35, T.30N., R.44E., M.D.B.&M. and Section 3, T.29N., R.44E., M.D.B.&M. This application is a temporary version of Application 81976.

### **WATER SOURCES AND FLOWS**

The sources of water that are the subject of this hydrographic survey are all located within the Lower Reese River Valley, Hydrographic Basin No. 04-059, Lander County, Nevada, and consist of all tributary water sources and springs located within the Trout Creek drainage. The Trout Creek drainage is located within the Shoshone Range of Mountains. The stream runs from east to west from the north to south trending ridgeline of the Shoshone Range with a maximum elevation of 9,321 feet above mean sea level. The Trout Creek drainage is bounded by the Crippen Canyon (Creek) to the north and by Hancock Canyon to the south. The drainage area is measured upstream from the upper irrigation diversion that is located within the SW $\frac{1}{4}$ NE $\frac{1}{4}$  of Section 18, T.29N., R.45E., M.D.B.&M. at an elevation of 5,560 feet above mean sea level. Any precipitation occurring below this elevation would have a minimal contribution to the overall volume of flow from Trout Creek.

The total area of the watershed is calculated at 10.37 square miles (6637.34 acres). The acreage is also calculated by elevation zones as illustrated in Table 1.

Table 1. Area by elevation zone for the Trout Creek watershed.

Area (acres)	Area (sq mi)	Elevation (ft ASL)
112.30	0.18	Below 6000
1247.75	1.95	6000-7000
3725.70	5.82	7000-8000
1508.90	2.36	8000-9000
42.70	0.07	Above 9000
6637.35	10.38	Total

Snow accumulation over the winter months is the primary source of water that is utilized for irrigation and stock watering during the spring and early summer. Small springs are tributary to Trout Creek throughout the extent of the watershed, but have been found to contribute little to the overall flow that is necessary for irrigation purposes.

The Lewis Peak SNOTEL<sup>2</sup> site can be a good indicator of the amount of streamflow that will be available on a year to year basis when correlated with a sufficient number of flow measurements during various water years. This site is located on Mount Lewis which contains a small portion of the headwaters for Trout Creek. However, the SNOTEL site has limited data (2001 through present). The lack of streamflow measurements on Trout Creek that are necessary to construct a correlation between accumulated precipitation as snowfall and runoff limits the usefulness of the SNOTEL data.

Use of drought year streamflow measurements to extrapolate flows in average to wet years may be subject to a large percentage of error. There are many factors that affect the volume and timing of runoff from a stream system. A best case scenario would be an extended period of fall rain events that would saturate the soil profile prior to freezing temperatures and the onset of the snow season. Snow that accumulates during the winter season would not have to satisfy a soil moisture deficit prior to runoff occurring during the late winter through early summer period. In this situation there would be maximum runoff from any volume of snow that would accumulate over the winter months.

In the case of a dry fall with early and sustained snowfall, there could actually be less runoff from an above average snowpack. Runoff during the succeeding spring and early summer season could be less than in the scenario in the preceding paragraph due to the partial consumption of snowmelt by a dry soil profile.

During most water year precipitation/runoff cycles, the “mathematical average” doesn’t occur on a regular basis. In the case of precipitation in the north-central portion of the state actual precipitation would be below average most of the time with less-frequent above-average winters making “average” higher than most years.

It is realized that the court would like the most expedient solution for the resolution of the dispute between the parties that are subject to this proceeding. The task at hand for personnel of the State Engineer’s Office is to produce a meaningful report of the hydrographic conditions of Trout Creek in order for the court to be able to come to a fair and just decision regarding the relative rights of the water claimants.

Two maps are included with this report. The first is titled “Trout Creek Hydrographic Survey Overview – Plate 1”. This map illustrates the measuring points, claims and conduits referred to in this document. The second is titled “Trout Creek Watershed With 1000 Foot Elevation Zones – Plate 2. This map is drawn on a U.S. Geological Survey topographic map base in order to more easily view the relative acreage of each 1000 foot zone. This map will be useful in the future when correlating precipitation with streamflow from the Trout Creek

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<sup>2</sup> Lewis Peak SNOTEL (Station: NV16J01S), Natural Resource Conservation Service,

# Trout Creek Hydrographic Survey

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watershed. Some newer stock water claims are also shown on the map designated Plate 2. Since stock watering is a major issue in this proceeding it was decided that all stock water claims should be illustrated.

## Findings

Field investigations of claimant's water claims were conducted on April 26, 2012 and August 15, 2012. These investigations were performed to verify that the water use stated within each Proof of Appropriation is as described.

Table 2. Trout Creek, Shoshone Range, Lander County, Nevada - 2012 Streamflow Measurements.

Upstream of Pipeline Diversion*				Downstream of Pipeline Diversion*				Amount being diverted into pipeline*		Filippini Diversion**			
Latitude		N40.38609		Latitude		N40.39468		(Upstream - Downstream)		Longitude		W116.97397	
Longitude		W116.94979		Longitude		W116.97397							
Date	Time	CFS	GPM	Date	Time	CFS	GPM	CFS	GPM	Date	Time	CFS	GPM
2/28/2012	10:15	1.00	451										
				3/7/2012				0.02	10	3/7/2012	11:00	0.00	0
4/5/2012	10:30	4.64	2081	4/5/2012				0.02	10	4/5/2012	11:45	1.90	851
4/17/2012	9:15	3.28	1470					N/A	N/A				
4/26/2012	11:00	4.60	2065	4/26/2012	13:00	3.78	1695	0.82	369	4/26/2012	14:00	2.48	1114
5/9/2012	10:30	2.33	1046	5/9/2012	11:00	1.58	709	0.75	337	5/9/2012	12:00	0.82	370
5/18/2012	14:00	1.35	608	5/18/2012	14:30	0.56	250	0.80	358	5/18/2012		Dry	0
6/27/2012	10:30	0.30	134	6/27/2012		Dry	0	0.30	135	6/27/2012		Dry	0
7/9/2012	14:00	0.11	49	7/9/2012		Dry	0	0.11	49	7/9/2012		Dry	0
7/11/2012	9:45	0.15	69	7/11/2012		Dry	0	0.15	67	7/11/2012		Dry	0
7/18/2012	1:30	0.10	43	7/18/2012		Dry	0	0.10	45	7/18/2012		Dry	0
8/3/2012	9:30	0.08	37	8/3/2012		Dry	0	0.08	36	8/3/2012		Dry	0
8/3/2012	14:45	0.04	17	8/3/2012		Dry	0	0.04	18	8/3/2012		Dry	0

**Julian Tomera Ranches Inc.**  
**Claim No. V-07581 and Permit 39377, Certificate 12160**

The point of diversion of Permit 39377, Certificate 12160 issued for the watering of livestock was field investigated on April 26, 2012 by the Water Commissioner<sup>3</sup>. The point of diversion is the same as irrigation Claim No. V-02678 (Rand). The actual point of diversion under Certificate 12160 is described as being located within the SW $\frac{1}{4}$ NE $\frac{1}{4}$  Section 18, T.29N., R.45E., M.D.B.&M. This point would be described as a continuation of the pipeline that also diverts irrigation water to the Rand property under Claim No. V02678.

The place of use under Certificate 12160 is described as stock watering tanks located within the NW $\frac{1}{4}$ NW $\frac{1}{4}$  Section 12 and the SE $\frac{1}{4}$ NW $\frac{1}{4}$  Section 2, T.29N., R.44E., M.D.B.&M. and also within the SE $\frac{1}{4}$ NE $\frac{1}{4}$  Section 33, T.30N., R.44E., M.D.B.&M. The field investigation of this certificate discovered that there are two additional stock watering troughs located within the SE $\frac{1}{4}$ SE $\frac{1}{4}$  Section 12 and the SW $\frac{1}{4}$ SE $\frac{1}{4}$  Section 2, T.29N., R.44E., M.D.B.&M.

Application No. 80737 was filed on April 4, 2011 by Julian Tomera Ranches, Battle Mountain Division to change the point of diversion and place of use of a portion of the waters of Trout Creek that are currently identified under Claim V-07581. This application lists the proposed place of use as the SW $\frac{1}{4}$ SE $\frac{1}{4}$  and the SE $\frac{1}{4}$ NW $\frac{1}{4}$  Section 2, Lots 1 and 2 of Section 3, W $\frac{1}{2}$ NW $\frac{1}{4}$ , SE $\frac{1}{4}$ SE $\frac{1}{4}$  of Section 12, T.29N., R.44E., M.D.B.&M.; and the SE $\frac{1}{4}$ NE $\frac{1}{4}$  and NE $\frac{1}{4}$ SE $\frac{1}{4}$  of Section 33, T.30N., R.44E., M.D.B.&M. The existing place of use under Claim V-07581 by Julian Tomera Ranches, Battle Mountain Division, is generally all of the natural channels lying within grazing lands utilized by Tomera Ranches.

Due to the pending litigation<sup>1</sup> two protests to the granting of a permit under Application No. 80737 have been filed by Daniel and Eddyann Filippini and Rand Properties, LLC.

The field investigation revealed that the pipeline (Figure 1 and Plate 1) that supplies water to the stock tanks is an extension of the Rand's irrigation pipeline and is regulated by a valve. There has been an attempt to reduce the amount of water needed in the pipeline by using floats so water is only diverted into the stock tanks when needed. This works well for the upper stock tanks but it creates too much pressure on the two lower tanks. It was decided that there would be a float on Tomera's lowest tank and Rand's lowest tank would act as a pressure relief with a small amount of overflow.

Overflow at Rand's tank that is located within the SW $\frac{1}{4}$  NE $\frac{1}{4}$  Section 18, T.29N., R.45E., M.D.B.&M., NAD 27, N.40.38708°, W.116.95128°, was measured on July 11 using a bucket and a stopwatch, the flow was 6 gallons per minute (gpm). The same day there was a leak at Tomera's lowest tank and a measurement was also made at that location using a 90° V-notch weir, the flow at this location was 2.91 gpm. Mr. DelSoldato was told at the time if the flow in the pipeline is reduced to a lower rate of flow, the upper control valve becomes plugged with sediment. This indicates that it takes about 9 gpm to serve the stock water line without

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<sup>3</sup> Steve DelSoldato, Water Commissioner.

causing sedimentation problems. The existing stock watering right under Permit 39377, Certificate 12160, is issued for 8.4 gpm.

**Rand's Trout Creek Ranch**  
**Proof of Appropriation No. V-02678**

Proof of Appropriation No. V-02678 claims 1.076 cfs from Trout Creek for the irrigation of 53.8 acres of land and stock-water use. This claim was field investigated on August 15, 2012 by the Water Commissioner<sup>3</sup>. The current point of diversion (Figure 1) is the same as the diversion currently being utilized to provide stock water under Permit 39377, Certificate 12160, as described in the preceding section.

"Item (22) Remarks" section of the claim states that "Ditches were used earlier and in 1960 the pipeline was installed."

The acreage identified in the claim is irrigated by wheel line and set sprinklers, and the nature of the crop is grass and alfalfa mix that is cut for hay.

The diversion into the pipeline was measured with a pygmy current meter on April 26, 2012 (0.82 cfs), May 9, 2012 (0.75 cfs) and May 18, 2012 (0.80 cfs). The rate of diversion averaged 0.791 cfs. This amount of water is used continuously by the irrigation system when the water is available. Later in the season when this flow rate is not available the water is stored in a water tank (Figure 2) that holds approximately 24,000 gallons.

A document titled "Water Ditch & Flume of Wm. Pankey" was filed on January 11, 2011 by Walter Leberski in order to substantiate an earlier priority date under Claim V-02678. The location of the ditch was plotted (Plate 1) using the measurements listed in the ditch survey traverse on page 3 of the document. The Nevada Central Railroad was used as the anchor point for the plot of the Pankey Ditch. The plot places the claimed place of use in the vicinity of Nevada State Route 305.





Figure 1. Pipeline diversion located within the SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> of Section 18, T.29N., R.45E., M.D.B.&M. This represents the point of diversion for Claim V-02678 and the current diversion for stock water under Permit 39377, Certificate 12160.



Figure 2. Rand's Trout Creek Ranch water tank. The photo was taken looking up the Trout Creek Canyon in a southeasterly direction.

The Rand's also have two stock tanks on the lower section of the pipeline that is described under Tomera's Permit 39377, Certificate 12160. These tanks are located outside of the place of use that is described under Claim V-02678. The first tank is located within the NE $\frac{1}{4}$ SE $\frac{1}{4}$  Section 12, T.29N., R.44 $\frac{1}{2}$ E., M.D.B.&M. The second (lower) one is located within the SE $\frac{1}{4}$ NE $\frac{1}{4}$  Section 34, T.30N., R.44E., M.D.B.&M.

Application No. 81976 was filed on June 20, 2012 by Rand Properties, LLC to change the place and manner of use of a portion of the waters of Trout Creek that are currently described under Claim V-02678. This application lists the proposed place of use as being located within Sections 26, 27, 34 and 35, T.30N., R.44E., M.D.B.&M.; and Section 3, T.29N., R.44E., M.D.B.&M. The existing place of use to be stripped of irrigation is described as being 0.73 acres located within the NE $\frac{1}{4}$ NW $\frac{1}{4}$  Section 18, T.29N., R.45E., M.D.B.&M. Closer review of Application No. 81976 reveals that the first tank located within the NE $\frac{1}{4}$ SE $\frac{1}{4}$  Section 12, T.29N., R.44 $\frac{1}{2}$ E., M.D.B.&M. is not included within the proposed place of use of 81976.

Application No. 81976 has been protested by Daniel and Eddyann Filippini and Julian Tomera Ranches, Inc., Battle Mountain Division requesting the denial due to reasons outlined in said protests and pending litigation<sup>1</sup>.

Temporary Application No. 81952T was filed on June 20, 2012 by Rand Properties, LLC to temporarily change the place and manner of use of a portion of the waters of Trout Creek that are currently claimed under Claim V-02678. This application contains the same information as described in the preceding two paragraphs describing protested Application No. 81976. No action has been taken toward the permitting or denial of Application No. 81952T to date due to the pending litigation.

### **Filippini's Badger and Chiara Ranches** **Proof of Appropriation No. V-01563 and Permit 6456, Certificate 901**

Claim V-01563 has two priority dates, 1896 for 233.7 acres of irrigated acreage and 1909 for 99.9 acres with stock watering included. The place of use is described accurately in the proof, the point of diversion is identified on the supporting map as "Headgates No. 1-3" that are located adjacent to the irrigated acreage. There is also a point of diversion about seven miles upstream that is located within the SE $\frac{1}{4}$ SW $\frac{1}{4}$  of Section 12, T.29N., R.44E., M.D.B.&M. Water is diverted at this point into a smaller channel (ditch) that helps to reduce the transportation loss. This diversion is also known as the "bypass diversion". A portion of the vested claim is supplemented by ground water appropriated under Permit 78616.

The nature of the crop is pasture grass that is cut for hay when sufficient water exists and alfalfa that is supplemented by ground water permits.

Permit 6456, Certificate 901 has a priority date of 1921 for 27.49 acres, a diversion rate of 0.2749 cfs and a seasonal duty of 82.47 acre feet (3 acre feet per acre). The certificate and the cultural map filed under certificated Permit No. 3864 accurately describe the place of use and point of diversion.



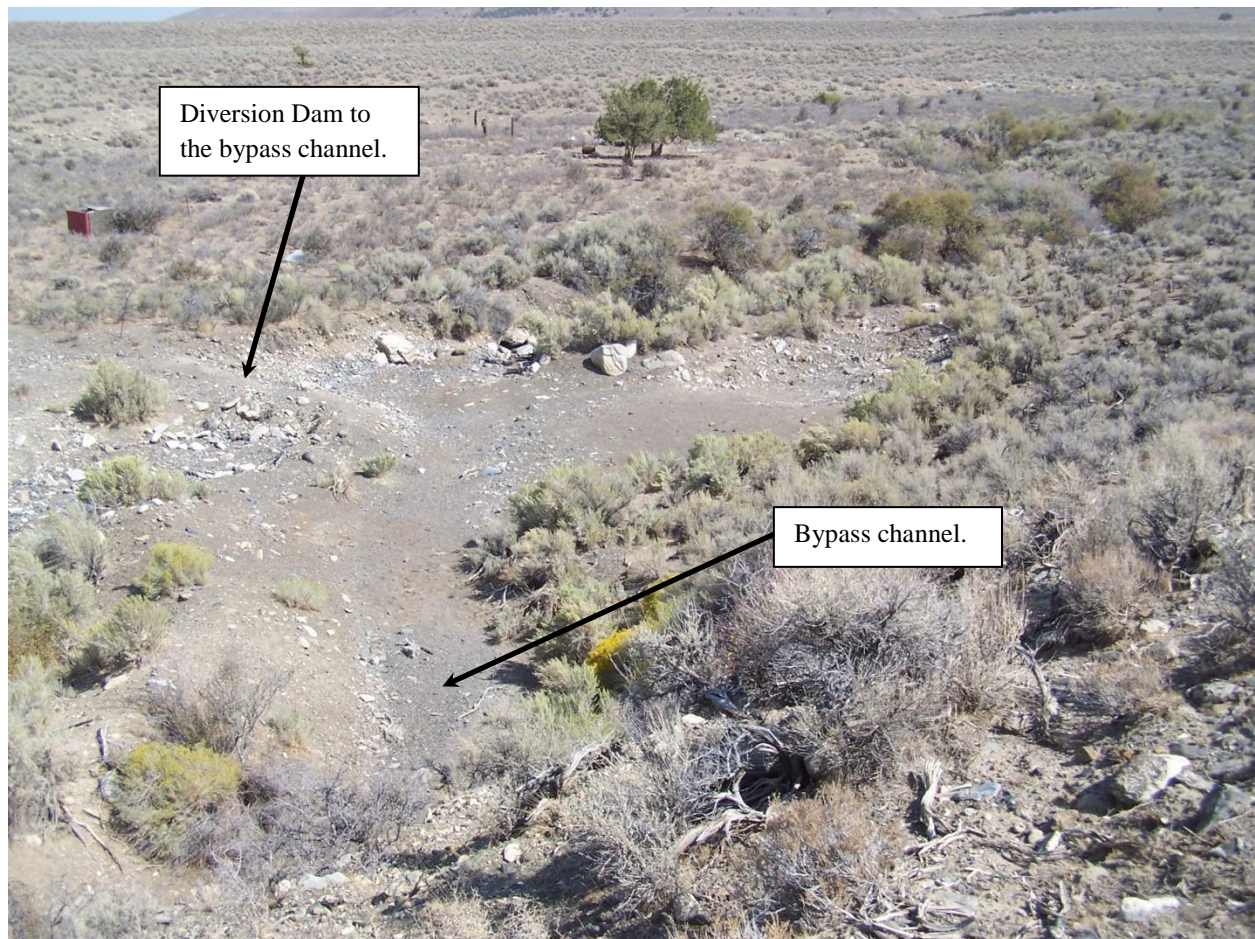


Figure 3. Filippini diversion into the "bypass diversion" that is located within the SE $\frac{1}{4}$ SW $\frac{1}{4}$  of Section 12, T.29N., R.44E., M.D.B.&M. Photo was taken looking in a southwesterly direction.

Flow measurements were made at the bypass diversion April 5, 2012 (1.897 cfs), April 26, 2012 (2.483 cfs) and on May 9, 2012 (0.824 cfs). The measurement conducted on April 26<sup>th</sup> was during a heavy rain event and it had a direct influence on the volume of water in the stream. Observations of the streamflow in Trout Creek were also made downstream of the bypass diversion and the water never made it any further downstream than a mile from the site of the measurements. The dam constructed of native materials diverts water from the main stream channel into the bypass channel.

## Conclusions

Streamflow measurements on Trout Creek that were made during the spring and summer of 2012 revealed that stream runoff was adequate for irrigation for only a short window of time due to drought conditions that have persisted throughout the State of Nevada over the winter of 2011-2012 and the succeeding spring and summer. Snowpack forecasts for the Lower Humboldt River Basin were reported at anywhere from 0 to 14% of average by the Natural Resources Conservation Service (NRCS)<sup>4</sup> in their May 1, 2012 report. While streamflow measurements were conducted by personnel of the State Engineer's Office from April through August of 2012, there is insufficient data to attempt to predict the irrigation season flow rates in average to above average precipitation years.

Without additional streamflow data it will be impossible to identify the flow rates necessary within Trout Creek to reach the Filippini property. While it is known and documented that water does reach the Filippini Ranch and has been placed to beneficial use, the data is not available to be able to quantify flow rates necessary to traverse the approximate seven miles from the diversion into the "bypass diversion" ditch from Trout Creek to the Filippini property. At this point the only criteria for determining whether or not water will be delivered to the downstream water user is priority date and whether or not the existing flows will reach the downstream water user. When existing flows will not reach a downstream user, this condition is described as what is commonly known as a "futile call" for water. It is considered a waste of water to attempt to deliver water to a downstream irrigator with a higher priority when all of the streamflow will be lost to infiltration, evaporation and evapotranspiration.

As mentioned earlier in this report there is insufficient data available to be able to draw a conclusive correlation between snowpack from the Lewis Peak Snotel Site and existing streamflow measurements.

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<sup>4</sup> Nevada Water Supply Outlook Report, May 1, 2012, NRCS.

In the past diversion rates for irrigated acreage have been assumed using a rule of thumb of 2.5 cfs as the optimum diversion rate for every 100 acres of irrigated land. This rationale is valid if an uninterrupted water supply is available and the streamflow continuously exceeds the rate necessary to irrigate a known acreage. With the exception of the early spring freshet, there is generally insufficient flow available from most surface water sources located within the State of Nevada to meet these criteria. The thought is that it allows the appropriators to take advantage of excess flows in the better water years. This is true if you are the senior appropriator on a stream system. If you are the junior appropriator, then you still may not receive any water in an above normal water year because this "rule of thumb" tends to overestimate the actual amount of water available within a stream system. Therefore, it is this offices recommendation that diversion rates be based on real flow data and not any "best case" delivery rates of water.

Respectfully Submitted,



Steve DelSoldato  
Water Commissioner

SD/SW

Dated this 5<sup>th</sup> day of  
November, 2012.



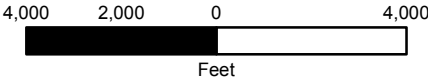
# Trout Creek Hydrographic Survey Overview

Plate 1

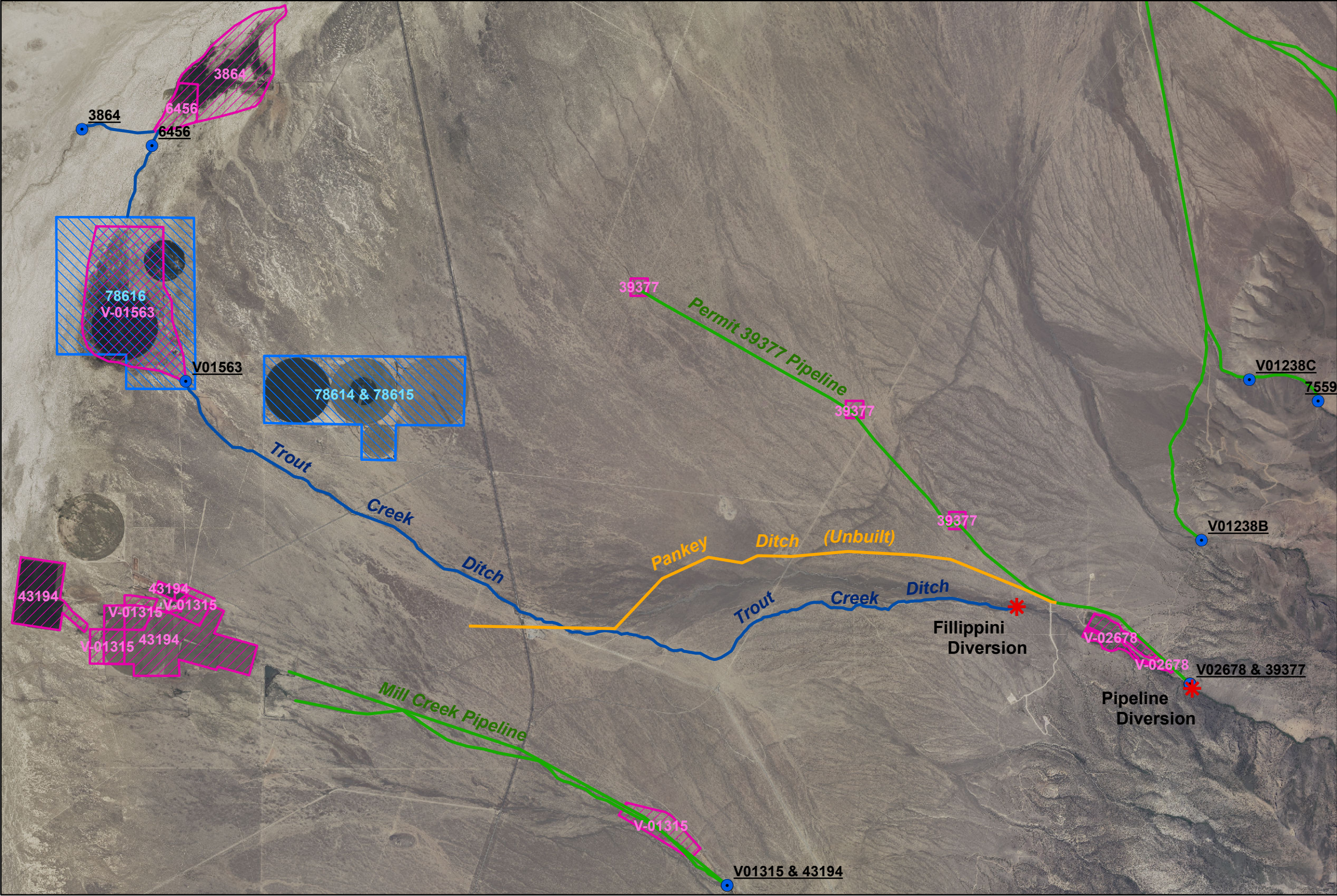
Permit/ Proof	Owner
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V01563	Fillipini
V02678	Rand
3864	Fillipini
6456	Fillipini
7559	Tomera
39377	Tomera
43194	Fillipini
78614	Fillipini
78615	Fillipini
78616	Fillipini

**Key**

- Flow Measurement Locations
- Surface POD
- Pankey Ditch
- Trout Creek Ditch
- Pipeline
- Surface POU
- UG\_POU



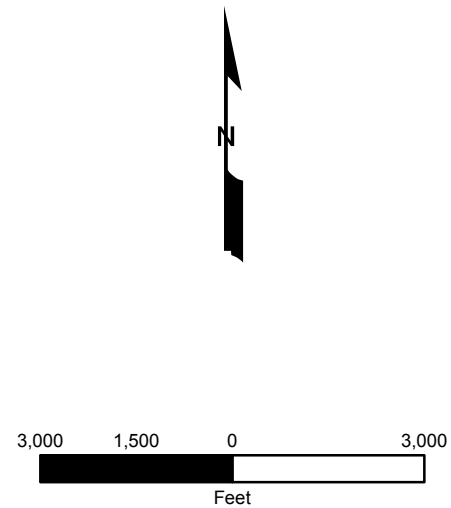
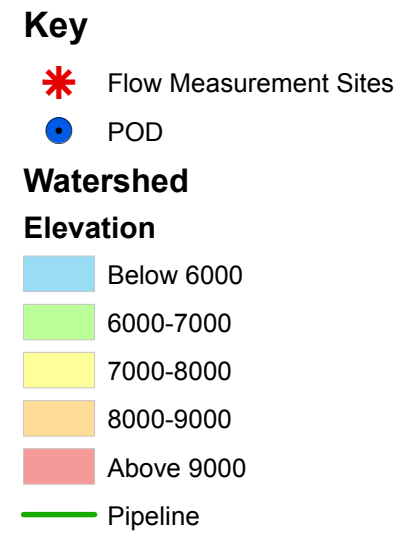
Nevada Division of  
Water Resources  
Carson City, Nevada  
October 23, 2012





# Trout Creek Watershed With 1000 Foot Elevation Zones

Plate 2



Nevada Division  
of  
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Carson City, Nevada  
October 23, 2012

